



New Research on the Relationships Between Philadelphians' Educational Attainment and their Employment, Earnings and Contributions to Government and Society

Overview:

Three recently-released research reports commissioned through Project U-Turn and funded by the William Penn Foundation and the Pennsylvania Department of Labor and Industry offer analyses that shed new light on the relationships between Philadelphians' educational attainment and their earnings, employment and contributions to government and society. The new reports use different research methodologies but reach similar conclusions that underscore the importance of the City's efforts to promote substantial increases in numbers of high school graduates and residents earning post-secondary credentials.

All three reports were prepared by university-based researchers: Ruth Curran Neild and Christopher Boccanfuso of the Johns Hopkins University Center for Social Organization of Schools (CSOS), authors of *Untapped Potential: Early Labor Market Outcomes of Dropouts and Graduates from Philadelphia's Public Schools*, and Paul Harrington, Neeta Fogg, and Ishtar Khatawada of the Northeastern University Center for Center for Labor Market Studies (CLMS), authors of *The Lifetime Employment and Earnings Consequences of Dropping Out of High School in Philadelphia*, and *The Tax and Transfer Fiscal Impacts of Dropping Out of High School in Philadelphia City and Suburbs*.

Methodologies.

CSOS researchers worked with the School District of Philadelphia and the Pennsylvania Department of Labor and Industry to produce a unique data set that merges student academic records from the School District of Philadelphia's Classes of 2000-2005 with the Pennsylvania Department of Labor and Industry's quarterly data on employment and earnings. With these data, Neild and Boccanfuso produced two analyses of labor market outcomes for Philadelphia public high school graduates and dropouts: (1) a 2006 snapshot of labor market outcomes

Reports

Neild, R.C., & Boccanfuso, C. (2009). *Untapped Potential: Early Labor Market Outcomes of Dropouts and Graduates from Philadelphia's Public Schools*. Baltimore: Johns Hopkins University Center for Social Organization of Schools.

Fogg, N., Harrington, P., & Khatawada, I. (2009), *The Tax and Transfer Fiscal Impacts of Dropping Out of High School in Philadelphia City and Suburbs*, Northeastern University Center for Center for Labor Market Studies.

Harrington, P., Khatawada, I., & Fogg, N., (2008), *The Lifetime Employment and Earnings Consequences of Dropping Out of High School in Philadelphia*. Northeastern University Center for Center for Labor Market Studies.

for graduates and dropouts from the School District Classes of 2000 – 2005; and (2) a longitudinal study of labor market outcomes for dropouts and graduates in the Class of 2000, measured in 2006.

CLMS researchers developed estimates of the lifetime employment and earnings impacts of dropping out of high school for residents of 18-64 year-old Philadelphians based on data derived from the U.S. Census Bureau's American Community Survey (ACS), an annual large scale population survey designed to produce accurate estimates of a wide variety of population characteristics at the national, state and selected local levels. Through these analyses, CLMS researchers estimate lifetime employment and earnings for individual Philadelphians, and also calculate the fiscal costs that the decision to drop out of high school imposes on government and the broader community.

When considering occasional differences in findings between CSOS and CLMS, it is important to remember that the studies are based on populations that overlap but are not exactly the same. The two main differences are: 1) CLSM is all Philadelphia residents, while CSOS is Philadelphia public high school students; and 2) CLSM looks at Philadelphians age 18-64, while CSOS looks only at young adults.

Summary of Key Findings:

- **Philadelphia's economy is increasingly unforgiving** for individuals without at least a high school diploma. The **job content and staffing patterns** of the city's labor market are very heavily weighted toward occupations and industries that **demand workers with high levels of educational attainment** and **need comparatively few workers with low basic skills proficiencies** and few years of schooling. (CLMS)
- **Philadelphia high school graduates are much more likely to be employed than dropouts** (CLSM: 58% vs. 39%; and CSOS: 49% vs. 36%). Dropouts are stuck in extended periods of joblessness. When they do work, they typically occupy part-time, part-year, low skill jobs with wage increases that grow at flatter rates over time than workers with more education. (CLMS and CSOS)
- The **ten industries** in which Philadelphia public high school dropouts and graduates collectively earned the greatest total compensation **were nearly identical**, indicating that **the advantage of a high school diploma may lie in more steady employment** rather than differing occupations for high school graduates with no postsecondary education. (CSOS)
- **High school graduates earn significantly more annually than dropouts** (CLMS: \$19,437 vs. \$9,774; CSOS: \$12,334 vs. \$9,248). In fact, the **work rate of Philadelphia's 18-64 year-old dropout population was only 49%** (CLMS) and **less than 40% of dropouts from the Classes of 2000-2005 had any earnings at all** in Pennsylvania's formal economy during 2006 (CSOS). Over a working lifetime, a **high school graduate earns almost twice the lifetime earnings of a high school drop out** – about \$871,000 vs. \$457,000. (CLMS) (As noted in the Methodology section earlier in this summary, the difference between the studies' figures for annual earnings for high school graduates probably results from the fact that CSOS data focus on the Classes of 2000-2005, whose members have yet to accumulate much of a work history; while CLSM deals with the much larger age span of individuals who have had the opportunity to develop significant work experience.)
- **Gaps in employment and earnings between graduates and dropouts expand over time.** For example, by 2006, high school dropouts from the Class of 2000 averaged annual earnings slightly

above the poverty line for individuals, but high school grads with no postsecondary education averaged over \$15,000 in annual earnings. (CSOS)

- Although high school graduates earn significantly more than dropouts, **most Philadelphia youth will need at least some postsecondary education** to earn family-sustaining wages. For example, while high school graduates earn more than dropouts, **many still do not have earnings above the poverty line** (CSOS). By contrast, the earnings of college-educated Philadelphians range from **\$26,723** among those who had **completed some college** below the bachelor's degree level, to **\$47,613** among those **with a bachelor's or a higher degree**. And over a working lifetime, Philadelphians with a **bachelor's degree or higher earn 250%** as much as **high school graduates** (\$2.05 million vs. \$870,000) (CLMS). In short, “without additional postsecondary education, the effect of a high school diploma on lives and livelihoods may be rather limited.” (CSOS)
- Between 1979 and 2006, the lifetime earnings of **dropout** residents of the city **declined by 31 percent** and high school **graduates declined by 11 percent**, whereas the city's **college graduate residents** saw an **increase** in their expected lifetime earnings of **3 to 7 percent**. As a result, the gaps between the lifetime earnings of dropouts and other educational groups in the city increased sharply. (CLMS)
- While there was a **substantial gender gap**, (with lower mean annual earnings for female dropouts than males) in the Class of 2000 during the period 2001-06, this gap narrowed over time for high school graduates from the Class of 2000 and **essentially disappeared with some postsecondary education** (CSOS). CLMS findings for the broader Philadelphia population show a narrowing of the gender gap with increasing educational attainment, but a significant earnings advantage continuing for males at all educational levels. CLMS also reports that, from 1979-2006, **females saw substantial increases in expected lifetime incomes** in all educational attainment levels except for dropouts, while **men saw significant declines** in at all education levels except for masters degree or higher.
- With regard to race and ethnicity, there were **substantial differences** in mean annual earnings with **higher levels for Asians and Whites** on the one hand, and **lower levels for African Americans and Hispanics** on the other, for the Class of 2000 from 2001-2006, **regardless of education levels**. (CSOS)
- **Working age adults in Philadelphia who fail to complete high school impose very high costs** upon the broader population in the form of low tax payments, high rates and amounts of receipt of government transfer payments (e.g. welfare, Social Security, unemployment compensation), along with high institutionalization costs. Specifically, over their working lifetimes, the **net fiscal contribution** of each Philadelphia high school graduate vs. that of each high school dropout is **\$580,000**, which represents the **potential gain to the federal, state, and local governments for each successful high school graduation of a Philadelphia student** who would have otherwise dropped out. (CLMS)

Selected tables from: Fogg, N., Harrington, P., & Khatawada, I. (2009), *The Tax and Transfer Fiscal Impacts of Dropping Out of High School in Philadelphia City and Suburbs*

Table 1:
Mean Annual Earnings of 18- to 64-Year Old Civilian Non-Institutional Population
 (Excluding 18- to 22-year Old Students) in Philadelphia City and Suburbs*, 2006

| Educational Attainment | Ratio Relative to Philadelphia City | | Ratio Relative to Philadelphia Suburbs | |
|------------------------------------|--|-------------------------|---|-------------------------|
| | High School Dropouts | High School Dropouts | High School Dropouts | High School Dropouts |
| <12 or 12, n H.S. diploma | \$9,663 | 1.000 | \$15,317 | 1.000 |
| High school diploma or GED | \$19,437 | 2.012 | \$27,715 | 1.809 |
| Some college or associate's degree | \$26,723 | 2.766 | \$38,013 | 2.482 |
| Bachelor's degree or higher | \$47,613 | 4.928 | \$69,498 | 4.537 |
| All education levels | \$25,314 | 2.620 | \$46,954 | 3.065 |

Note: Individuals with no earnings were assigned 0 earnings in the computation of mean annual earnings.

Source: 2006 American Community Survey (ACS), Public Use Microdata Samples (PUMS) files, U.S. Census Bureau, tabulations by authors.

*Philadelphia suburbs include Bucks, Chester, Delaware, and Montgomery counties.

Table 2:
Mean Lifetime Earnings of 18- to 64-Year Old Civilian Non-Institutional Population (Excluding 18- to 22-year Old Students) in Philadelphia City and Philadelphia Suburbs*, 2006

| Educational Attainment | Ratio Relative to Philadelphia City | | Ratio Relative to Philadelphia Suburbs | |
|------------------------------------|--|-------------------------|---|-------------------------|
| | High School Dropouts | High School Dropouts | High School Dropouts | High School Dropouts |
| <12 or 12, no H.S. diploma | 457,089 | 1.000 | 756,544 | 1.000 |
| High school diploma or GED | 870,625 | 1.905 | 1,221,346 | 1.614 |
| Some college or associate's degree | 1,177,846 | 2.577 | 1,637,735 | 2.165 |
| Bachelor's degree or higher | 2,051,455 | 4.488 | 2,885,495 | 3.814 |
| All education levels | 1,131,452 | 2.475 | 1,996,710 | 2.639 |

Source: 2006 American Community Survey (ACS), Public Use Microdata Samples (PUMS) files, U.S. Census Bureau, tabulations by authors.

*Philadelphia suburbs include Bucks, Chester, Delaware, and Montgomery counties.

